Service Manual

PIONEER®
The Art of Entertainment

ORDER NO.
ARP2431

STEREO CASSETTE DECK

CT-S210

HEM, HB
HPW, SD

- **Refer to the service manual ARP1980 for CT–337.**
- **This manual is applicable to CT–S210/HEM, HB, HPW and SD.**

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MEMO

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CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

CT–S210/HEM, HB, HPW, SD and CT–337/HEM have the same construction except for the following:

Mark	Symbol & Description	Part No.					Remarks
		CT–337/ HEM type	CT–S210/ HEM type	CT–210/ HB type	CT–S210/ HPW type	CT–S210/ SD type	
	Main unit	Non supply	Non supply	Non supply	Non supply	Non supply	
	Display unit	Non supply	Non supply	Non supply	Non supply	Non supply	
⚠	AC power cord	PDG1003	PDG1003	PDG1036	PDG1006	PDG1013	
⚠	Power transformer (AC220–230/230–240V)	RTT1087	RTT1204	RTT1204	RTT1087	.....	
⚠	Power transformer (AC110/120–127/220/240V)	.....	.....	.....	.....	RTT1088	
⚠	Line voltage selector (AC110/120–127/220/240V)	.....	.....	.....	.....	PSB1002	
	Eject knob	RAC1344	RAC1367	RAC1367	RAC1367	RAC1367	
	Slide knob (A)	RAC1357	RAC1236	RAC1236	RAC1236	RAC1236	
	Operation knob	RAC1345	RAC1683	RAC1683	RAC1683	RAC1683	
	Tact knob	RAC1409	.....	.....	.....	.....	
	DOLBY name plate	RAH1655	RAH1458	RAH1458	RAH1458	RAH1458	
	Meter panel	RAH1637	.....	.....	.....	.....	
	Meter lens	.....	RAH2004	RAH2004	RAH2005	RAH2005	
	Door panel	RAH1638	RAH1994	RAH1994	RAH2036	RAH2036	for Eject knob
	Latch spring	.....	RBH1008	RBH1008	RBH1008	RBH1008	
	Control cord	RDE1018	.....	.....	.....	.....	
	Control cord (Mini)	.....	PDE–319	PDE–319	.....	.....	
	Packing case	RHG1177	RHG1329	RHG1329	RHG1329	RHG1329	
	Bonnet	RXX1079	RXX1396	RXX1396	RXX1396	RXX1396	
	Front panel assembly	RXX1323	RXX1492	RXX1492	RXX1473	RXX1473	
	Leg assembly	.....	.....	.....	REC–369	REC–369	
	Insulator	VNK1095	VNK1095	VNK1095	.....	.....	
	Stopper	VEC1061	VEC1061	VEC1061	.....	.....	
	Operating instructions (English)	RRB1063	.....	RRB1108	RRB1108	RRB1108	
	Operating instructions (English/Spanish)	RRD1073	.....	.....	.....	RRD1119	
	Operating instructions (English/French/ German/Italian/Dutch/Swedish/Spanish/ Portuguese)	.....	RRE1055	.....	.....	.....	

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MAIN UNIT

Main unit of CT–S210/HEM, HB, HPW, SD and main unit of CT–337/HEM have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		CT–337/ HEM type	CT–S210/HEM and HB types	CT–S210/HPW and SD types	
	IC301, 1001, 1601	M5218L	BA15218N	BA15218N	
	IC801	UPC1297CA	UPC1297CA	·····	
	D801, 802	1SS252	1SS252	·····	
	D1102–1104	·····	1SS252	·····	
	D1110–1112	1SS252	·····	·····	
	Q801, 802	2SA1309A	2SA1309A	·····	
	Q803	DTC124ES	DTC124ES	·····	
	Q1150	DTC124ES	·····	·····	
	L301, 302	RTF1102	RTF1004	RTF1004	
	L601	LRA121K	LFA121K	LFA121K	
	L602	RTD1039	RTD1039	RTD1017	
	L801, 802	RTD1030	RTD1030	·····	
	C313, 314	CEAS4R7M50	CEANL4R7M25	CEANL4R7M25	
	C601, 602	·····	·····	CCCSL101K500	
	C801, 802	CGCYX103K25	CGCYX103K25	·····	
	C803, 804	CKUYB821K50	CKUYB821K50	·····	
	C805, 806	CFTXA223J50	CFTXA223J50	·····	
	C807, 808	CGCYX473K25	CGCYX473K25	·····	
	C809, 810	CCCSL101K500	CCCSL101K500	·····	
	C811, 812	CKCYB471J500	CKCYB471J500	·····	
	C813	CKPUYB101K50	CKPUYB101K50	·····	
	C814	CEASR10M50	CEASR10M50	·····	
	C816	CEAS4R7M50	CEAS4R7M50	·····	
	C819, 815	CEAS100M50	CEAS100M50	·····	
	C1110	CKCYF473Z50	·····	·····	
	C1105	·····	CKCYF103Z50	·····	
	C1111, 1113	CKCYF103Z50	·····	·····	
	C1112	CEAS010M50	·····	·····	
	R651	RD½LF331J	RD½LF331J	RD½LF201J	
	R652	RD½LF221J	RD½LF221J	RD½LF151J	
	R801, 802	RD ⅙ PM223J	RD ⅙ PM223J	·····	
	R803,804	RD ⅙ PM184J	RD ⅙ PM184J	·····	
	R805	RD ⅙ PM153J	RD ⅙ PM153J	·····	
	R806	RD ⅙ PM223J	RD ⅙ PM223J	·····	
	R807, 808	RD ⅙ PM472J	RD ⅙ PM472J	·····	
	R809	RD ⅙ PM103J	RD ⅙ PM103J	·····	
	R1003, 1004	RD ⅙ PM392J	RD ⅙ PM472J	RD ⅙ PM472J	
	R1150	RD ⅙ PM274J	RD ⅙ PM274J	·····	
	VR601, 602	·····	·····	VRTB6VS104	
	VR801, 802 (22k)	RCP1035	RCP1035	·····	
	CN112	BTMK05P–1R	BTMK04P–1R	BTMK04P–1R	
	CN113	BTMK11P–1R	BTMK10P–1R	BTMK10P–1R	
	J201	RDD1196	·····	·····	
	J202	·····	·····	KPC3	
	JA1101, 1102	·····	RKN1004	·····	
	JA1103	RKN1014	·····	·····	

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DISPLAY UNIT

Display unit of CT–S210/HEM, HB, HPW, SD and display unit of CT–337/HEM have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		CT–337/ HEM type	CT–210/HEM and HB types	CT–210/HPW and SD types	
	Q2451	2SA1309A	.....	.....	
	Q2468	2SC3311A	.....	.....	
	D2401	SEL4310E	SEL4310E	SEL4914A	
	D2403–2412	SEL4310E	SEL4310E	SEL4914A	
	D2413, 2414	SEL4214S	SEL4310E	SEL4914A	
	D2419, 2420	SEL4310E	SEL4310E	SEL4914A	
	D2421, 2422	SEL4214S	SEL4214S	.....	
	D2423	SEL4214S	.....	.....	
	D2431	1SS254	.....	.....	
	R2414, 2415	RD 1/6 PM331J	RD 1/6 PM331J	.....	
	R2416	RD 1/6 PM331J	.....	.....	
	R2428	RD 1/6 PM332J	.....	.....	
	S2308	RSG–155	.....	.....	

1. RESISTORS :
   Indicated in Ω, 1/4W, 1/6W, 1/8W, ±5% tolerance unless otherwise noted k; kΩ, M; MΩ, (F) ; ±1%, (G) ; ±2%, (K) ; ±10%, (M) ; ±20% tolerance.

2. CAPACITORS :
   Indicated in capacity (μF) /voltage (V) unless otherwise noted p ; pF. Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE CURRENT :
   ; DC voltage (V) at no input signal.
   Value in ( ) is DC current at stop state.
   ⬅mA ; DC current at no input signal.

4. OTHERS :
   ➡ ; Signal route.
   ⊘ ; Adjusting point.
   The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
   ※ marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

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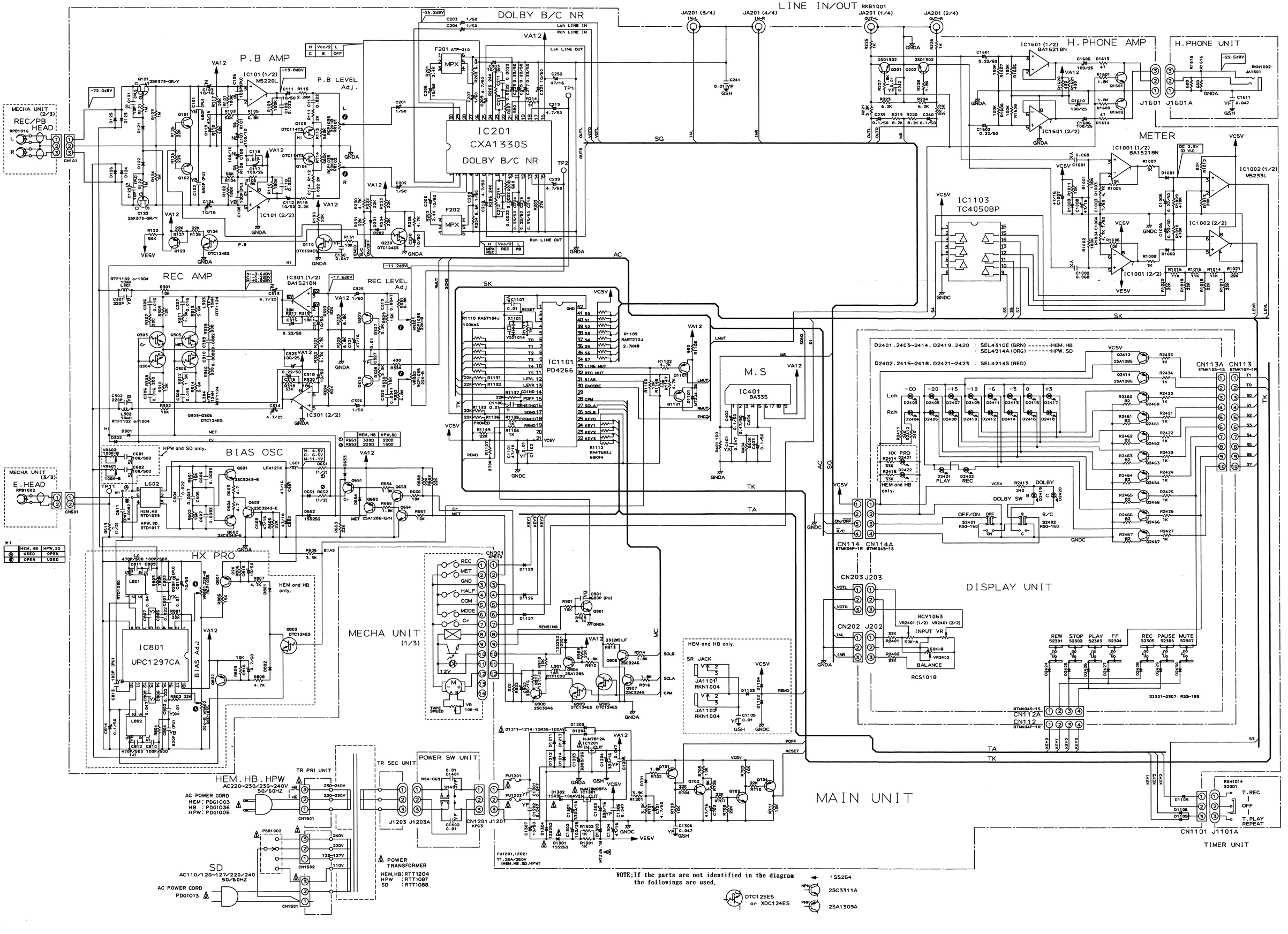
SCHEMATIC DIAGRAM



• P.C. BOARDS CONNECTION DIAGRAM

• View from component side

Line Voltage Selection

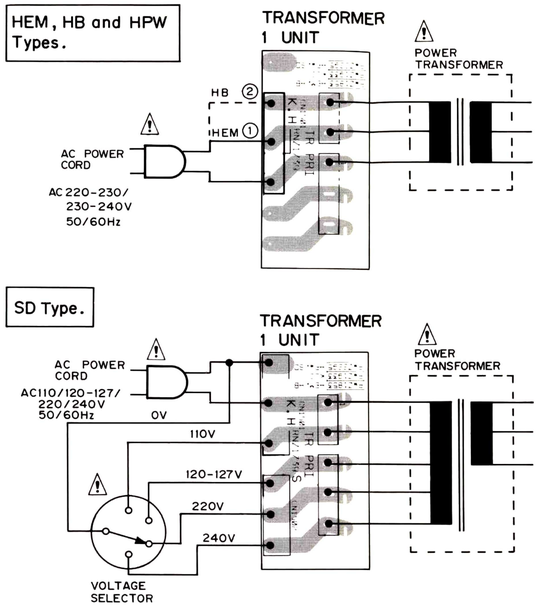
Line voltage can be changed with the following steps.

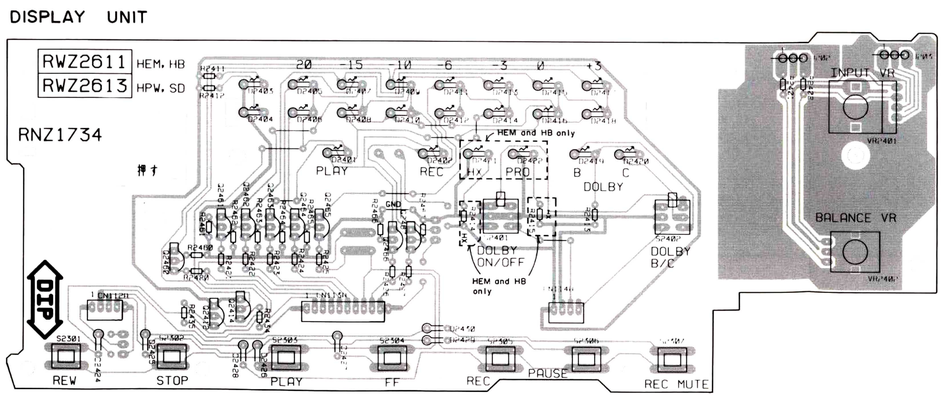
1. Disconnect the AC power cord.
2. Remove the Bonnet case.
3. Change the connection of the TRANSFORMER 1 UNIT assembly primary pins.

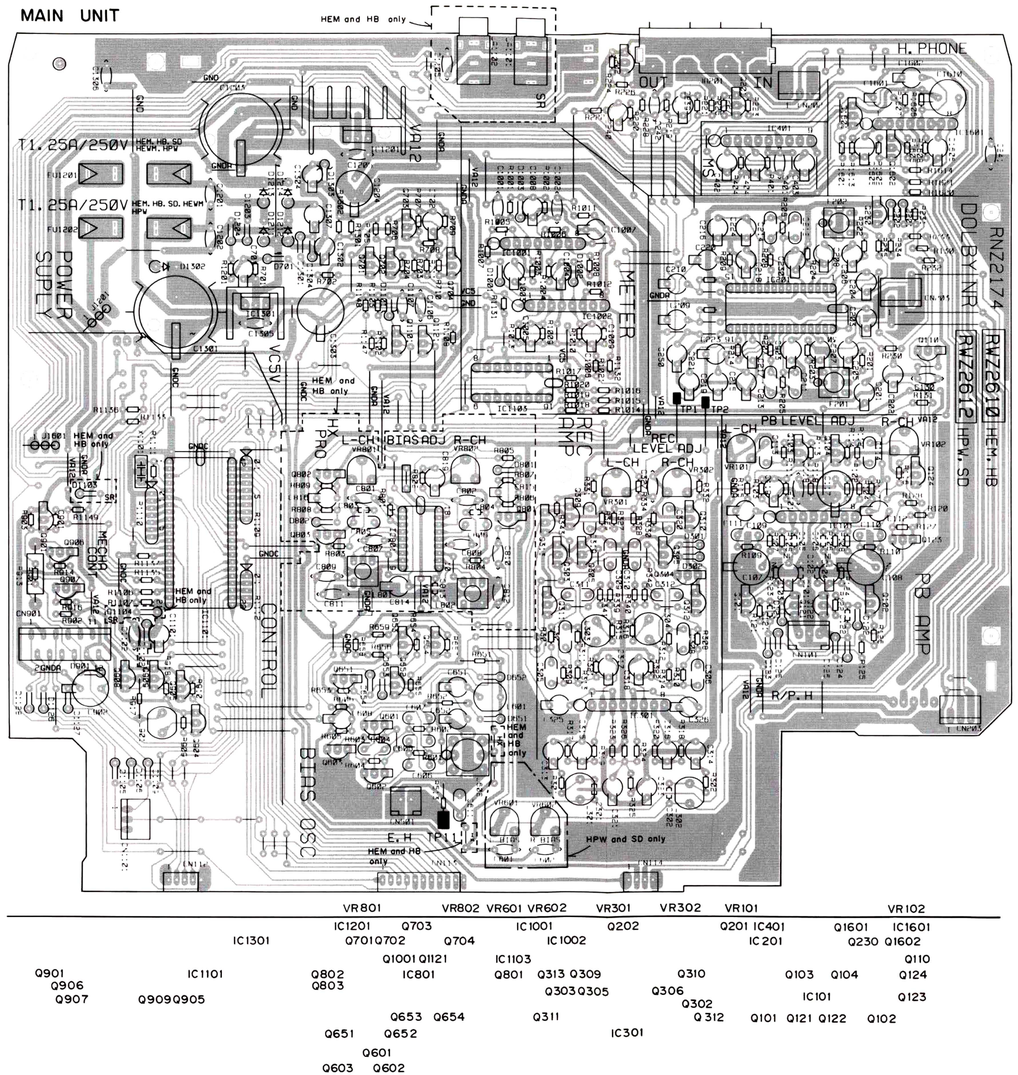
	Voltage
①	220 – 230 V
②	230 – 240 V

4. Stick the line voltage label on the rear panel.

Parts No	Description
AAX-193	220 V label
AAX-192	240 V label







P.C.B. pattern diagram indication	Corresponding part symbol	Part name
		Transistor
		FET
		Diode
		Zenner diode
		LED
		Varactor
		Tact switch
		Inductor
		Coil
		Transformer
		Filter
		Ceramic capacitor
		Mylar capacitor
		Styrol capacitor
		Electrolytic capacitor (Non polarized)
		Electrolytic capacitor (Noiseless)
		Electrolytic capacitor (Polarized)
		Electrolytic capacitor (Polarized)
		Power capacitor
		Semi-fixed resistor
		Resistor array
		Resistor
		Resonator
		Thermistor

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above Table.
3. The capacitor terminal marked with ▭ shows negative terminal.
4. The diode marked with C) shows cathode side.
5. The transistor terminal marked with ▭ shows emitter.

• View from soldering side

Line Voltage Selection

Line voltage can be changed with the following steps.

1. Disconnect the AC power cord.
2. Remove the Bonnet case.
3. Change the connection of the TRANSFORMER 1 UNIT assembly primary pins.

	Voltage
①	220 – 230 V
②	230 – 240 V

4. Stick the line voltage label on the rear panel.

Parts No	Description
AAX-193	220 V label
AAX-192	240 V label